

**METHOD AND APPARATUS FOR SCHEDULING
RESOURCES ON A SWITCHED UNDERLAY NETWORK**

ABSTRACT

A method and apparatus for resource scheduling on a switched underlay network enables coordination, scheduling, and scheduling optimization to take place taking into account the availability of the data and the network resources comprising the switched underlay network. Requested transfers may be fulfilled by assessing the requested transfer parameters, the availability of the network resources required to fulfill the request, the availability of the data to be transferred, the availability of sufficient storage resources to receive the data, and other potentially conflicting requested transfers. In one embodiment, the requests are under-constrained to enable transfer scheduling optimization to occur. The under-constrained nature of the requests enables requests to be scheduled taking into account factors such as transfer priority, transfer duration, the amount of time it has been since the transfer request was submitted, and many other factors.